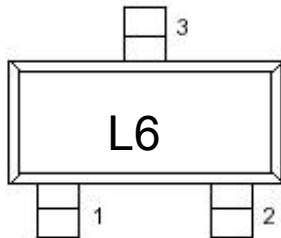


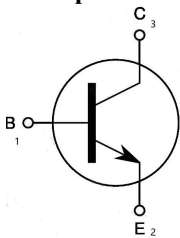
CDT1623L6-ME

TRANSISTOR

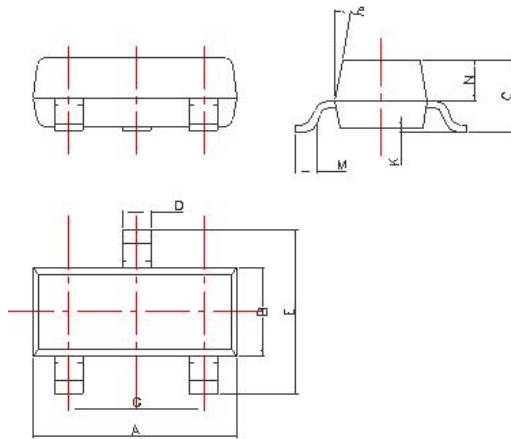
Marking: L6



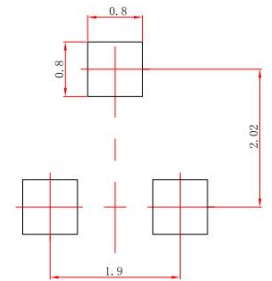
Top view



SOT-23 Dimension



DIM	Millimeters
A	2.85~3.04
B	1.30±0.10
C	1.00±0.10
D	0.45±0.05
E	2.25~2.55
G	1.90±0.1
K	0.00~0.10
M	0.20 min
N	0.60±0.10
P	7±2°

SOT-23
Suggested Layout

mm(±0.05mm)

MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	50	Vdc
Collector-Base Voltage	V_{CBO}	60	Vdc
Emitter-Base Voltage	V_{EBO}	5.0	Vdc
Collector Current - Continuous	I_C	100	mAdc
Base Current	I_B	30	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Collector Power Dissipation	P_c	300	mW
Junction and Storage Temperature	T_j , T_{stg}	150 , -55 ~150	°C

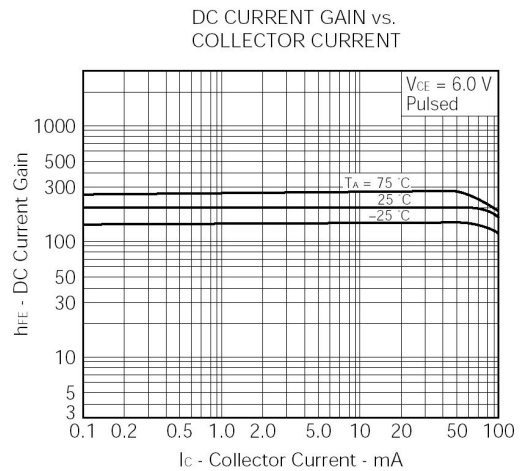
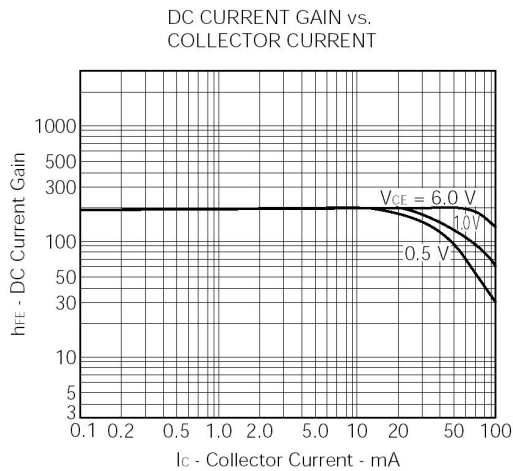
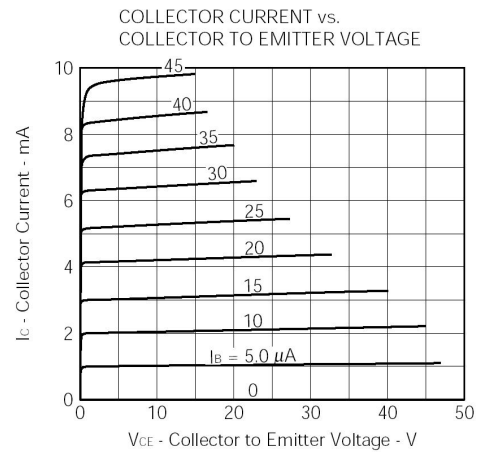
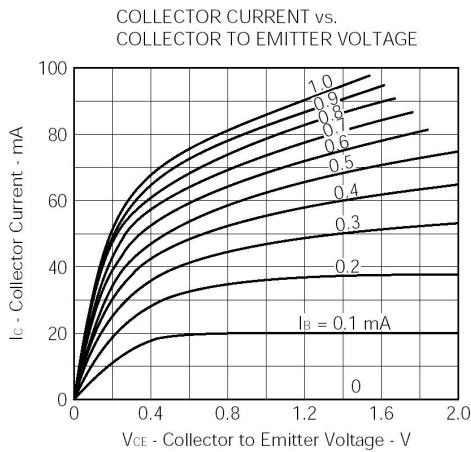
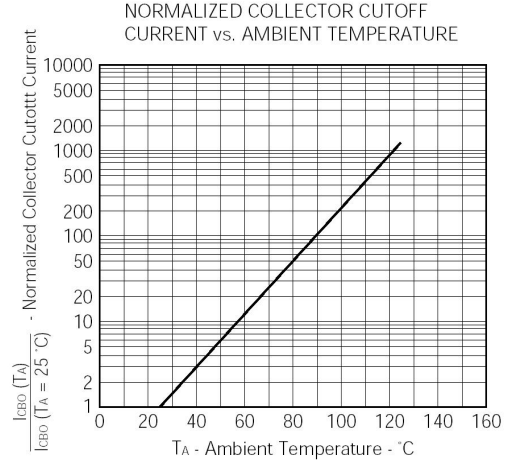
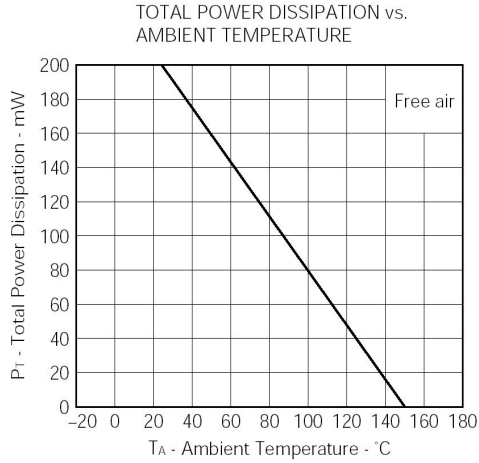
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5V, I_C=0$	--	--	0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1.0mA$	50	--	--	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A$	60	--	--	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A$	5	--	--	V
DC Current Gain	h_{FE}	$V_{CE}=6V, I_C=1mA$	200	--	400	--
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$	--	0.15	0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$	--	0.86	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=6.0V, I_C=1mA$	0.55	0.62	0.65	V
Transition Frequency	f_T	$V_{CE}=6.0V, I_C=10mA$	--	250	--	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=6V, I_E=0, f=1MHz$	--	3.0	--	pF

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TRANSISTOR

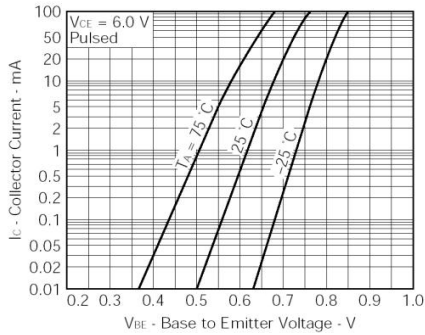
Typical Performance Characteristics



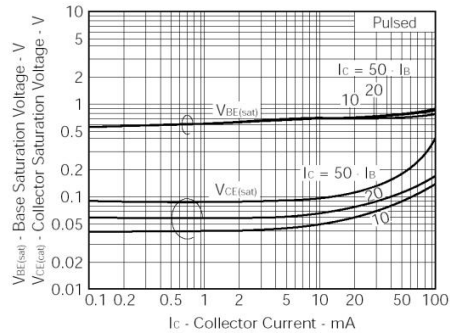
CDT1623L6-ME

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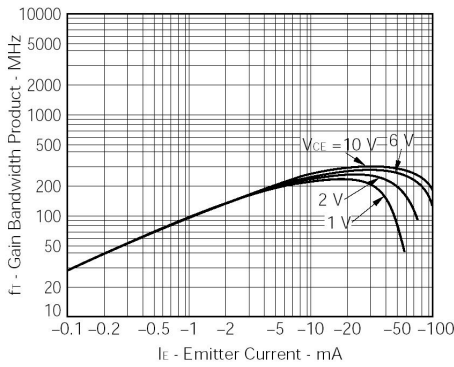
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



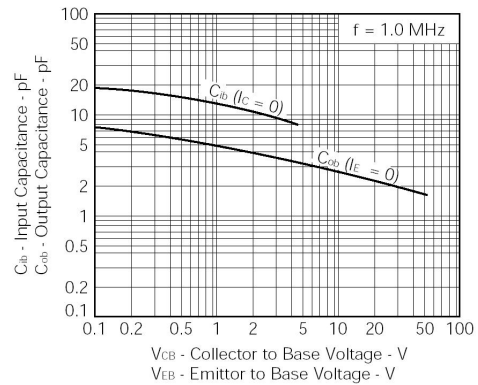
COLLECTOR AND BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT



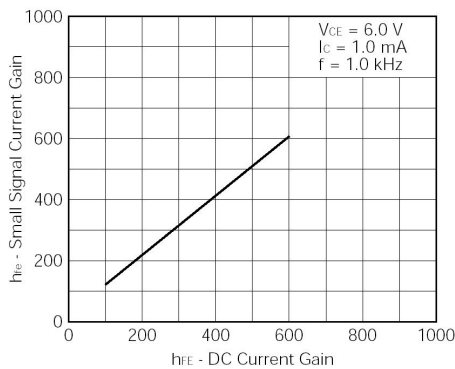
GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



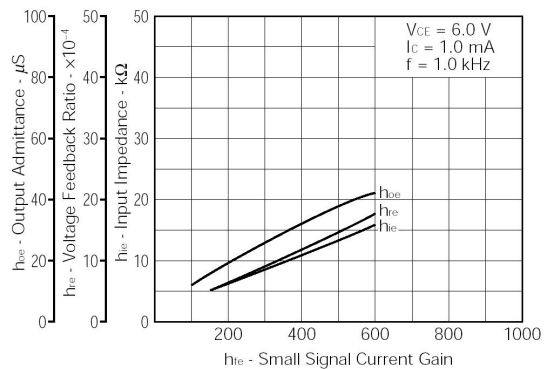
INPUT AND OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



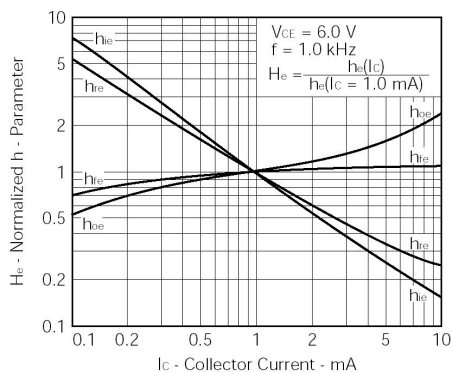
SMALL SIGNAL CURRENT GAIN vs. DC CURRENT GAIN



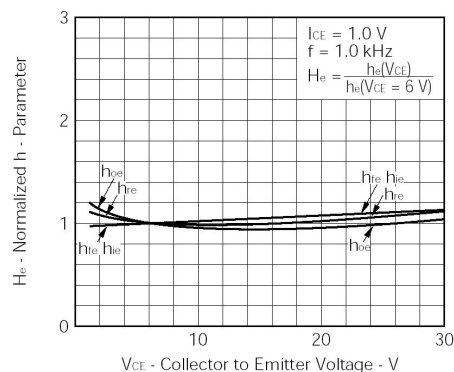
INPUT IMPEDANCE VOLTAGE FEEDBACK RATIO AND OUTPUT ADMITTANCE vs. SMALL SIGNAL CURRENT GAIN



NORMALIZED h-PARAMETER vs. COLLECTOR CURRENT



NORMALIZED h-PARAMETER vs. COLLECTOR TO EMITTER VOLTAGE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.